

REMARKS

Reconsideration of the Final Office Action of May 15, 2006 is respectfully requested. This filing is within two (2) months of the Final Office Action mail date to such that the provisions set for in paragraph 13 of the Office Action are applicable. Accompanying this Office Action is a copy of the previously listed foreign reference JP11334393, which is cited in the Information Disclosure Statement filed on February 21, 2006, together with a corresponding new PTO-1449 form listing this reference.

To summarize the claim changes made in this amendment, claim 1 has been amended in accordance with the Examiner's objections in the Office Action. Claim 12 has been rewritten as an independent claim by introducing the subject of claim 1 into claim 12. (inclusive of the above-noted amendment relative to The Examiner's Objection). No new matter is considered to be presented by these amendments. Claims 10, 11 and 13 have been canceled, and entry of the foregoing claim amendments is respectfully requested as placing the application in immediate condition for allowance or for the purpose of narrowing the issues for appeal.

Information Disclosure Statement

In the Office Action, there is an indication that JP11334393 was not initialed off as a reviewed reference on the basis that a copy of that reference was not found by the Examiner. Applicants file records and the accompanying postcard indicates four references as accompanying the Information Disclosure Statement filing of February 21, 2006. Thus, it is respectfully submitted that the Applicants satisfied the requirements of 37 CFR § 1.98 with the Information Disclosure Statement filing of February 21, 2006. Accordingly, confirmation of a review of JP11334393 and initial confirmation of that review is respectfully requested. To facilitate this confirmation, enclosed is a USPTO-1449 form with JP 11334393 listed for initial confirmation of review.

Claim Objections

In the Office Action, claims 1, 10 and 11 were objected to because of some informalities considered to exist in those claims. In this amendment, Claim 1 has been amended in accordance with the Examiner's suggestion. Claims 10 and 11 are canceled.

Double Patenting

Claim 13 was objected to under 37 CFR § 1.75 as being a substantial duplicate of claim 9. In this amendment, claim 13 is canceled.

GENERAL SUMMARY OF THE PRESENT INVENTION

Prior to discussing the prior art rejections raised against the claims at issue, a discussion of some of the attributes of the present invention are provided. The present invention relates to a power transmission arrangement of, for example, an all terrain vehicle (ATV) with a continuously variable transmission (CVT). As described in the application, the transmission can be considered as generally having a three-axis structure comprised of the crankshaft on a first axis; a primary shaft/sub shaft in a concentric arrangement relative to a second axis; and a secondary shaft on a third axis, and with the sub-shaft being arranged parallel and non-concentric relative to the crankshaft. Also, the secondary shaft with secondary pulley is non-concentric relative to the crankshaft and the primary shaft. In the claimed embodiments, the clutch member is arranged between the sub-shaft and the primary shaft. Furthermore, in the described embodiments, the crankshaft is mounted with a generator, and the sub-shaft is mounted with a recoil starter (in conjunction with the clutch being arranged between the sub-shaft and primary shaft). In other words, the generator and the recoil starter are arranged separately from each other and on different axes and the clutch is arranged between the sub-shaft (w/recoil starter) and the primary shaft. The features outlined above provide for effective arrangements in the transmission components that facilitate making the transmission system narrow in the lateral direction which is helpful in, for example, an ATV as it provides easy access for the driver, while also avoiding an undue longitudinal length in the vehicle.

Claim Rejections – 35 USC § 102

Claim 10 was rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Application Publication No. US2001/0007923 A1 to Yamauchi.

In this amendment, claim 10 is canceled.

Claim Rejections – 35 USC § 103

Claims 1, 3, 5-9 and 13 were rejected under 35 U.S.C. §103(a) as being unpatentable over Yamauchi in view of U.S. Patent No. 5,193,634 to Masut.

Claim 11 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamauchi in view of U.S. Patent Application Publication No. US2002/0033295 A1 to Korenjak et al.

Claims 4 and 12 were rejected under 35 U.S.C. §103(a) as being unpatentable over Yamauchi in view of Masut and Korenjak et al.

Applicants respectfully submit that cited documents fail to disclose or suggest the claimed invention including the three-axis structure with clutch member arranged between the sub-shaft and the primary shaft, the features of which are found in independent claims 1 and 12.

The Examiner relies on Yamauchi (US 2001/0007293) as a disclosure of the three-axis structure, and on Masut as a disclosure of the clutch member arranged between the sub-shaft and the primary pulley.

Applicants respectfully submit that the applied combination of Yamauchi in view of Masut fails to present a prima facie case of obviousness relative to the claimed three-axis structure with clutch member arrangement set forth in independent claims 1 and 12.

For example, the embodiment in Yamauchi only shows a three-axis CVT structure. Yamauchi discloses a clutch member on shaft portions 75a and 75b in a swing arm 8 (Figure 3), which clutch member is clearly far removed from the components at issue and thus clearly not pertinent to the claimed arrangement. This placement of the clutch at a location for removal from the claimed location is not unexpected in view of the intended use in Yamauchi with its transmission design and the additional freedom in clutch placement along the vehicles longitudinal axis, illustrated by the longitudinally displaced clutch arrangement.

The embodiment in Masut shows a conventional two-axis CVT, with a clutch member that is clearly mounted on a secondary shaft of the belt pulley combination. Therefore, the embodiment in Yamauchi in view of Masut fails entirely to disclose or suggest an arrangement that teaches placement of the clutch at the claimed location, particularly when considering Masut places its clutch member on the secondary shaft of its pulley combination and Yamauchi places its clutch structure at a location far removed from the component's relied upon in the rejection as is allowed under its disclosed frame support structure. Masut's clutch is also provided for the purpose of switching between the two motor types for its hybrid engine system, and thus its teaching of adding a clutch is related to the needs associated with a hybrid switch over, which is not a need presented in Yamauchi.

In other words, the relied upon references are respectfully submitted not to disclose or suggest the features in the claims in the present invention, involving a three-axis CVT structure system with the clutch member between the sub-shaft and the primary shaft, which provides for a highly compact arrangement of the transmission components unlike the prior art arrangements.

Accordingly, Applicants respectfully submit that independent claims 1 and 12 and their dependant claims are patentably distinguishable over the cited prior art.

The Examiner also relies on Yamauchi in view of Masut and further in view of Korenjak as a disclosure of the recoil starter mounted on the sub-shaft of the present invention. Applicants respectfully submit that those references also above do not present prima facie case of obviousness relative to the disclosed three-axis structure with the recoil starter mounted on the sub-shaft, the feature of claims 4 and 12.

For example, the embodiment in Yamauchi, described above, only shows the three-axis structure having no recoil starter which, again, is not surprising in view of the preferred usage of Yamauchi's engine and transmission system. Further, the embodiment in Korenjak only shows a conventional two-axis structure, in which the crankshaft and the primary shaft are concentric, having a recoil starter mounted on the crankshaft, which makes the transmission system wide and disturbs easy access for the driver.

The embodiment in Masut shows, as described above, a conventional two-axis CVT having a clutch member mounted on the secondary shaft and no recoil starter (again, this is not surprising in view of the intended use of the Masut device). Therefore, the disclosure and teachings of Yamauchi, Masut and Korenjak fail alone and in combination to teach the claimed recoil positioning relative to the rest of the claimed arrangement of claim 12.

Thus, the three (3) relied upon references are respectfully submitted not to disclose or suggest the features in the claims 4 and 12 of the present invention, (e.g., a three-axis CVT structure, wherein the sub-shaft is non-concentric with the crankshaft, and a recoil starter is arranged on the sub-shaft instead of the crankshaft, which makes the transmission system narrow in the lateral direction and provides easy access for the driver).

Furthermore, claim 4, which is dependent on claim 3 and thus includes the feature of claim 3, has a generator mounted on the crankshaft. References above also do not disclose or suggest a three-axis CVT structure having the recoil starter and the generator mounted separately on different axes to each other as presented in claim 4.

Accordingly, Applicants respectfully submit that claims 4 and 12 are patentably distinguishable over the cited prior arts together with claim 1 and its dependents.

As mentioned above, claims 10, 11 and 13 have been canceled.

In view of the above remarks, Applicants submit that the rejections are overcome. Hence, reconsideration and withdrawal of the rejection are respectfully requested.


U.S. Application Serial No. 10/807,457
Attorney Docket No. 032405R167

Also, Applicants respectfully submit that this Amendment and the above remarks obviate the outstanding rejections in this case, thereby placing the application in condition for immediate allowance. Allowance of this application is thus earnestly solicited.

Also, if any fees are due in connection with the filing of this amendment, such as fees under 37 C.F.R. §1.16 or §1.17, please charge the fees to Deposit Account 02-4300; Order No. 032405R167.

Respectfully submitted,

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